

Methow Restoration Council

January 16, 2018

Participants:

Name	Organization/Affiliation
Bill Boosman	Public
Chris Butler	Yakama Nation
Chris Johnson	MSRF
Crystal Elliot	TU
Greer Maier	UCSRB
Hans Smith	Yakama Nation
Jennifer Molesworth	Bureau of Reclamation
Jessica Goldberg	MSRF
John Arterburn	CTCR/RTT
John Crandall	MSRF
Joy Juelson	UCSRB
Kristen Kirkby	CCFEG
Mariah Mayfield	USFS
Paul Wagner	Colville Tribes
Rob Crandall	Methow Natives

Notes:

John Crandall – Monitoring Update: article of the month, from the NRC research press: *Watershed-scale effectiveness of floodplain habitat restoration for juvenile coho salmon in the Chilliwack River, British Columbia* done by some folks out of U of Toronto and from BC. The study was to try to figure out if floodplain restoration in the Chilliwack River was succeeding in increasing smolt production. They also looked at whether the projects are contributing to out-migration. It is an interesting river system. The work was over about a 4-year period. They wanted to figure out if the projects could produce smolt, and also how the data they collected in the field matched up to several models. They also looked at it in terms of costs benefit, how cost/smolt compared to hatchery production. They treated five side channels/off-channel habitats. These were slow and deep; they set traps at the top and bottom, not too wide areas or put in a hardened pinch point. They looked specifically at coho, but also had pinks, char, and they had a downstream screw trap. They were capturing the fish in the habitats and they marked them and then caught them downstream. Their results showed that 30% of the out-migrating coho in the system were from these five restored habitats. They talked a lot about where spawning was occurring, and got into looking at limiting factors, habitat vs. recruitment. They found tons of production from the side channels. Some of the models performed poorly, one did pretty well, and it was the most simplistic. It is interesting; we move forward with all of these models, and we need to remember to take them with a grain of salt and that they may not perform well in certain habitat types. In terms of cost, about \$1.23 per smolt was the average, so the work does a good job of producing fish for the costs. Hatchery cost is about \$1/smolt.

Paul Wagner – was that the cost for the first year?

John C – they were considering a 30-year maintenance period, range was \$0.69 - \$10/smolt; they say it was similar to hatchery costs

Chris Johnson – did anyone hear Janine Castro's talk [on floodplain restoration] on Friday?

Mariah Mayfield – I did, and it was interesting. I think there will be a video link and I can send it out when I get it. It was a broad overview, and was short, but it was really interesting.

John C – and for the paper, keep in mind that these are coho, and they really like off-channel habitat for rearing.

The other bit for today, a call to attention: we have freshwater mussels in the Methow. We don't understand their distribution really well. Papillae at the top are how you identify them. These were in the lower Methow in the vicinity of the Burma Bridge, a huge mussel bed. Nobody is paying too much attention to freshwater mussels, and some say they are among the most imperiled species on earth. We don't have that many species, two are doing okay and one is not doing that well. They have huge benefits to water quality, lamprey ammocoetes do better when they are raised near mussel beds, and there is a dynamic between mussels and trout. They can live for over 100 years. There is a publication on how to consider freshwater mussels, best management practices. Best time to manage for them is about a year before you implement. You can translocate but it needs to be during moderate temperatures so spring or fall. Think about mussels if your project is going to be happening in mussel habitat.

Chris J – from a permitting standpoint, which agency cares about mussels?

John C – WDFW, USFWS

Joy Juelson – UCSRB Updates: [*Post-MRC Update: the WA Capital Budget was passed in late January*]

The [lack of a] Capital Budget impacts our capacity dollars for WATs, approved projects, and for next year's process. There was some collaboration activity last week, but even if they pass a budget, they still need to pass a bond bill for the funding needed. Senate bill 6091: there is \$200 million for salmon recovery for the next ten years; I don't know a lot about it. In terms of next year's process, we are in the debrief stage. I sent out a survey, but I haven't gotten a lot of responses. I don't see a lot of changes for next year, but I'm still open to getting people together to talk about last year's process. I did have to commit to our tour dates for RCO, so we have similar dates to last year, which would be in mid-May.

Chris J – are we going to start on applications before we have a budget?

Joy – There will be another SRFB meeting in March, but we will see how it goes. This also affects outreach dollars. We launched a grant round for Okanogan County outreach on January 10, and the deadline is January 30 for applications. We will select in early February. If you would like to apply for funds let me know and I will send you an application. Awards will be pending the budget as well. These applications need to relate directly to project implementation; the easier it will be to get through the RCO filter. We may have some state funds for more education type projects, but we are using that money now to leave the lights on. Maximum request is \$5k, but you could put in more than one proposal.

In February, we have time on the agenda for EcoTrust and UCSRB regarding the online snowpack decision support tool and to show sponsors how to use it.

At our last board meeting, we had a conversation about post-project maintenance and adaptive management. An ongoing discussion, board is looking at ways to deal with projects when things go wrong.

Chris J – it isn't always when projects go wrong; it is also when projects are perceived to go wrong and the community doesn't always distinguish the way I would. We are dealing with public perception on actions rather than insurance actuaries.

Joy – Bill Towey with the Colville Tribes is the new UCSRB chair. Our new colleague James Fletcher is having some medical issues and he is off dealing with those, so we are a smaller team again.

The last thing is the RTT meeting. Tracy Hillman presented his work that he did with Phil Roni, and we have the report and we can send it out. We also asked Tracy to present it at the IT meeting on March 6th; I think it is something that sponsors will want. The paper is called *Effectiveness of Tributary Habitat Enhancement Projects*. They looked at over 1000 papers to create the bibliography and the assessment.

Greer – the paper is on our website and Phil Roni will present it at the Science Conference; the discussion at the IT will be how to use the information

Chris J – looking at the senate bill you referenced, it looks like they are talking about creating “Watershed Restoration and Enhancement Committees.” Any idea what that means?

Joy – no, but I’ll look into that.

Greer – the Science Conference is a week away, please register if you haven’t already, the program is now online. We have some good speakers, bringing in folks from all over the basin and the NW. There is a social event on Wednesday night at Pybus Market, and a silent auction. It is from 8-5 on Wednesday and 8-4 on Thursday. We have two of the ISAB members there to present their findings on the Upper Columbia Spring Chinook. A good opportunity to interact with them. Their report will be out at the end of January.

Greer Maier – Methow Assessment Units: the purpose of the Assessment Unit work that we are doing now is to prioritize areas for restoration. They want units that are not too big and not too small, and they don’t want tributaries lumped with the mainstem. They don’t want them to be bigger than HUC 12, but do want feedback with justification. Need to look at boundaries, determine whether they need to be adjusted, and whether there needs to be lumping or splitting, for any changes we need to have justification.

John Arturburn – I want to lay some foundation for why we are doing this and what we are trying to get out of this. One thing that has become clear to me is that people don’t understand why we’re doing what we’re doing. In 2014 the Biological Strategy for the Upper Columbia was revised, and part of that focused on our scoring of projects. And we changed the scoring of projects when it came from the biological benefit. We derived that by looking at the intrinsic potential of HUC 12 units in the Upper Columbia. This is the basis of how we scored projects for the SRFB. That decision by the RTT was further supported by Judge Redding’s throwing out of the Expert Panel process. That was a good time for change, so the RTT recognized that it was important to be consistent across our efforts. RTT felt that the old AUs were arbitrary and had bias toward mainstem vs tributaries and had a size bias as well. It was our hope to go to a more consistent approach to creating AUs in the future to address size bias and break out the tributaries from the mainstem. At the same time there was the work in the Okanogan and the beginnings of the expansion of EDT in the Methow. We were looking for a good consistent approach across the Upper Columbia. This is a building block for being able to use for creating AUs across the basin. EDT and the Biological Strategy revisions are on separate tracks; they have some things in common and that is a net positive for us. RTT decided to divide the watershed into HUC 12s and use those as Assessment Units. There was also one other element that never got completely vetted. In the Okanogan, we identified small tributaries that were smaller than HUC 12s but were still important, so we went through and constructed a polygon around these small basins so they could be identified and pulled out. That was what we were trying to do through this vetting process. In the Methow, an example of this is Hancock Springs Creek; it isn’t a HUC 12, but it should probably be split out. That is what we are hoping to get from the group. When we looked at the list that was provided by the MRC, apparently we hadn’t done a good job of identifying what we were looking for from the group. I did send out a spreadsheet to the members of the subgroups.

Greer – we have to get this done, and we are trying to provide support so we can get to the next steps in prioritization. Keeping the purpose in mind is important. They are looking for feedback on things, and a list of action items and the justification of why that is important.

John A – overall from the last RTT meeting, the RTT is, for the most part, not supportive of lumping. It’s okay if people want to lump them later for another purpose. You can always roll them up, but you can’t split later.

Greer – yes, we will keep them together unless you have strong reasons

John C – I think that we did what we did because we had the wrong marching orders, if you want to use the HUC 12s for consistency, we will be okay with that.

Hans Smith – my biggest concerns are in the mainstem breakouts. The HUC 12 doesn't see that, and there are some areas that we have some good data on, and it would be nice to use that data rather than the HUC 12s, which seem to be arbitrary. The mainstem elements are the biggest concern for where those breaks occur

Greer – for the mainstem breaks, we were going to use the RAs

Discussion – the subgroup broke the mainstem based on geomorphology, could give additional information on the reasoning, also want mainstem breaks on the Twisp and Chewuch Rivers; would like to see mainstem units on the bigger tributaries so that they are standalone, tried to call out the important tributaries to the big tributaries

Jennifer Molesworth – we also talked about rather than having the mainstem boundaries being linear, having a polygon to capture the places where the tributaries come in, alluvial fans

John A – what I'm trying to get at is where we break Assessment Units, but what I'm hearing is a discussion about the reach scale; AUs are typically an amalgam of multiple reaches

Discussion – areas where the tributary may be low priority but the confluence may be high priority; recommend that the confluence area be captured with the importance of the mainstem AU

Greer – they have recognized that, and so there will be a buffer when the lines are drawn

Chris J – we want to make sure the importance of that confluence habitat is captured in the mainstem unit rather than lost in the tributaries

Greer – having the buffer will allow us to capture that. I will also make a note of that so it gets incorporated. Also, for the concerns about having so many AUs, it may end up being an online usable platform.

Hans – the Lower Methow is a place where we recommend lumping, we don't have an issue if the RTT wants to have the same size AUs, and we don't have an issue

John C – but for the LMRA, we aren't going to break it into many reaches because it is all very similar

John A – I also was hoping to convey that we don't really have good information on barriers or the anadromous endpoint on a lot of those streams. I honestly believe that there is some sort of barrier on these streams that is the endpoint of anadromy. I listed a bunch of streams where those barriers haven't been articulated. In the Okanogan, we defined our AU as only the anadromous zone; there may be some AUs that you want to truncate due to the barriers. Defining the endpoint of fish use is important and would be useful. It would also be useful to identify the endpoint of bull trout.

Jennifer – I would think that the Critical Habitat maps have been well vetted

John C – it is inadequate for bull trout

Jennifer – also if upland treatments are important (roads), I would hate to lose the ability to prioritize that

John A – downstream effects are identified at the source of the impacts

Greer – can you explain how this affects the AU boundaries for this stage?

John A – I want adequate definitions so that we can identify fish use and limiting factors

Jennifer – there is also a lot with the Forest Service; we know where the barriers are

Mariah – we sent that to Eric, and if he needs more information, he has my contact info

John C – we don't fully understand bull trout distribution, and we won't know it in the next 6 months, I think that we need to be inclusive

John A – we're trying to move forward with something more defined, but if we can't then we will go with what we have

Chris J – what is your sense of how we deal with the mouth of the tributaries?

John A – if they empty into the mainstem then we would deal with it there. There is a break at the confluence area; the tributaries are going to be assessed for their limiting factors along their length. There will be reaches that are much smaller than AUs

Greer – the RTT will need to talk about that to figure out how we define the buffers for the mainstem assessment units

John C – having a set distance will not get you the use in the confluence

Greer – a good point of discussion

Chris J – think you can come up with something that is consistent and usable

John A – I have a list of places that are identified as anadromous habitat

Discussion – not too much splitting; don't have enough information to make the splitting relevant

Greer Maier – Hatchery Background Summary: we mainly have addressed actions within Habitat, but I have also been looking at Hatchery. VSP parameters are drawn from all of the H's. We currently have a risk that is high, and that is primarily due to hatchery; all are related to all of the H's. We developed an initiative for Integrated Recovery Goals. The goal is to achieve recovery and to engage and collaborate with the other H's, opportunities to leverage our activities or to contribute when appropriate. We have an integrated technical advisory group that is a group of experts in various fields. The Habitat report came out in 2014, and I changed the approach for the Hatchery report. The revised process starts with outreach and partnership, then compile data and information, which informs discussions, leads to issue identification, which then leads to a workplan. The idea is to foster communication between the board and the other H managers to identify areas where we can help each other. There are a variety of activities that the board can engage on. The purpose is to engage in the other H sectors in a positive and meaningful way.

The board approved the Hatchery Background Summary on December 21st. It is a compilation of information rather than a report like the Habitat Report. The discussions will cover the portion of what the information means for recovery. The data mainly came from PUD reporting, annual reports and the 5-year report. A lot of our monitoring is supporting by the PUDs. Also FWS memos and reports, literature, and a lot of unpublished data. The focus is on listed fish and programs that are connected to conservation of listed fish, so spring chinook and steelhead. A good resource of information.

[Document Summary – history, hatchery program goals and types of programs, current program list, 7 programs in the Methow, adult returns hatchery vs. natural origin, adult management, a lot of hatchery origin fish are removed in the Methow, PNI – proportion of natural influence, ecological interactions, VSP parameters, uncertainties and data gaps, Key Points, and Opportunities to Engage].

Greer – I'm moving on to the Hydropower H next

Roundtable

John Crandall – Methow Monitoring: The Lower Methow Reach Assessment is moving along; I have been looking at fish down there in the cold water

Greer Maier – UCSRB: we have about 250 people registered for the Science Conference, and we hope to have about 300

Paul Wagner – Colville Tribes: we have 7 projects in play, Mission BDAs (Libby Creek) and Mission fencing (Buttermilk Creek), Silver Instream Structures with MSRF and CCFEG and might do BDAs on that project too, Devaney side channel with MSRF, Runyon production well removing small surface diversion down by Carlton, continuing to support Barkley, and also the Beaver program. We had some carryover funds, so we're also looking at t hydraulic continuity study on Beaver Creek, funding a production well on the Maltais property where we are removing a barrier dam, and also a small amount of outreach

funding with Kristen and Rob. We're also getting more involved with Lamprey translocation work in the Okanogan.

John C – has anyone looked at getting a WCC crew to work on the BDAs?

Crystal Elliot – we've been waiting on the decision before we get people lined up but that would be a great opportunity. We have also been talking to the Beaver Crew about that and using their volunteers

Chris Johnson – Methow Salmon Recovery Foundation: we're continuing to work through Barkley Bear at the 30% design level and the 15% design level at Twisp River Floodplain. We've dealing with issues with the acquisition because of the problems with the state budget.

Crystal Elliot – Trout Unlimited: we're continuing along our road of suction dredge mining reform; we have Senate bill 6412, which is going to Senator Carlisle's Senate Environment committee. We don't have a hearing scheduled yet, but we're working on it. It is focused on water quality. Also have been working with the Governor's office, and submitted a petition for rulemaking to WDFW; it was denied, but may appeal to the Governor. It would take a lot of money to do rule making with the department, which is the primary issue. We're working on a couple of different angles.

Next MRC February 20, 2018

Definitions of Commonly used Acronyms	
AEM	Action Effectiveness Monitoring
ANS	Aquatic Nuisance Species
AREMP	Aquatic and Riparian Effectiveness Monitoring Program
AU	Assessment Unit
BACI	Before, After, Control, Impact (study design type)
BDA	Beaver Dam Analogue
BEF	Bonneville Environmental Foundation
BO/BiOp	Biological Opinion
BPA	Bonneville Power Administration
CAC	Citizens Advisory Committee (for SRFB funding applications)
CAO	Critical Areas Ordinance
CBFWA	Columbia Basin Fish and Wildlife Authority (pronounced "cubfwah")
CCFEG	Columbia Cascade Fisheries Enhancement Group
CCT	Colville Confederated Tribes (newer acronym is CTCR – see below)
CTCR	Confederated Tribes of the Colville Reservation (older acronym is CCT – see above)
CHaMP	Columbia Habitat Monitoring Program
CMZ	Channel Migration Zone
CREP	Conservation Reserve Enhancement Program
CSF	Community Salmon Fund
DEM	Digital Elevation Model
EDT	Ecosystem Diagnosis and Treatment
EQIP	Environmental Quality Incentives Program
ESA	Endangered Species Act
FCRPS	Federal Columbia River Power System
FFFPP	Family Forest Fish Passage Program
FIA	Forest Inventory and Analysis program (USFS)
Four "H"s	The four factors affecting salmon recovery: Hatchery, Hydro, Habitat, Harvest
HACCP	Hazard Analysis and Critical Control Point
HGMP	Hatchery Genetic Management Plan
HPA	Hydraulic Project Approval
HSRG	Hatchery Scientific Review Group
HWS	Habitat Work Schedule
IMW	Intensively Monitored Watershed
IS	Implementation Schedule
ISAB	Independent Science Advisory Board
ISEMP	Integrated Status and Effectiveness Monitoring Project
ISRP	Independent Scientific Review Panel (reviews BPA projects)
IT	Implementation Team
LW/LWD	Large Wood/Large Woody Debris
M2	Middle Methow (a project area defined as the reach between Winthrop and Twisp)
MaDMC	Monitoring and Data Management Committee (pronounced "madmac")
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
MRC	Methow Restoration Council
MSRF	Methow Salmon Recovery Foundation (pronounced "em-surf")
MVRD	Methow Valley Ranger District

MWC	Methow Watershed Council
NFF	National Forest Foundation
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NPCC	Northwest Power and Conservation Council
OCD	Okanogan Conservation District
OBMEP	Okanogan Basin Monitoring and Evaluation Program
OWL	Okanogan Wilderness League
PCSRF	Pacific Coastal Salmon Recovery Fund (pronounced "Pacsurf")
PHABSIM	Physical Habitat Simulation
PIBO	PACFISH/INFISH* Biological Opinion
PNAMP	Pacific Northwest Aquatic Monitoring Partnership
PUD	Public Utility District
QAQC	Quality Assurance, Quality Control
RA	Reach Assessment
RCO	(Washington State) Recreation and Conservation Office
REI	Reach-based Ecosystem Indicators (used in Reach Assessments)
RFEG	Regional Fisheries Enhancement Group
RFP	Request for Proposals
RM	River Mile
RPA	Reasonable and Prudent Alternative(s)
RTT	Regional Technical Team
SEPA	State Environmental Policy Act
SMP	Shoreline Management Plan
Snerd	Fish Capture-Snorkel Herding
SOAL	State Owned Aquatic Lands
SOW	Statement of Work
SPIF	Specific Project Information Form (used with the Corps ESA programmatic)
SRFB	(Washington State) Salmon Recovery Funding Board (pronounced "surfboard")
SRP	State Review Panel (for SRFB funding applications)
STEM Database	Status, Trend and Effectiveness Monitoring database at NOAA's Northwest Fisheries Science Center
UCSRB	Upper Columbia Salmon Recovery Board
TRT	Technical Recovery Team (NOAA)
USFS	US Forest Service
USGS	US Geological Survey
VSP	Viable Salmonid Population
WAT	Watershed Action Team (the MRC is our WAT)
WDFW	Washington Department of Fish and Wildlife
WDNR	Washington Department of Natural Resources
WNFH	Winthrop National Fish Hatchery
WWP-TU	Washington Water Project of Trout Unlimited
YN	Yakama Nation

*PACFISH/INFISH The PACFISH/INFISH Biological Opinion (PIBO) Effectiveness Monitoring Program was initiated in 1998 to provide a consistent framework for monitoring aquatic and riparian resources on most Forest Service and Bureau of Land Management lands within the Upper Columbia River Basin.